south-west of him, and for a second the sky was darkened, when all at once the light burst forth stronger than before, and shortly afterwards he heard a sound as distinctly as if three or four cannon had been at once discharged, at a distance of a quarter of a mile. But the last lighting up of the sky seemed only for an instant, when all was dark as before.

With the exception of the person's seeing the meteor, I can

corroborate his statement in every particular.

I have this morning seen a gentleman from Strathspey, a resident in Grantown. Like myself he saw the blaze of light and heard the sound shortly after, but the sound seemed to him to come from the north-west. My opinion is that there must have been a meteor of extraordinary size travelling from the southern part of Banffshire on towards the centre of Inverness-shire, and that it had burst somewhere near the source of the river Nairn. The brilliancy of the light was as if a vivid flash of lightning had remained visible in the sky.

Should I hear any further particulars of this unusual pheno-

menon, I shall take notes and communicate.

Nairn, 7th Nov. 1872.

Meteoric Showers of November 27, 1872. By Lieut. F. J. Gray, of the Surveying Ship "Nassau."

(Communicated by Capt. Evans.)

Knowing the great interest you take in any of the peculiar phenomena connected with the heavens, I have taken the liberty of sending you the following short account of an extraordinary meteoric shower seen here between 9 P.M. of the 27th and 3 A.M. of the 28th November.

About the former time a few meteors were first observed falling, the number steadily increasing until 11, when the maximum frequency was attained, and 308 counted in five minutes by two observers, one in each gangway, facing out-board; from this time until 3 A.M., the number decreased, ceasing altogether at that hour.

The majority were small and falling, but a few were excessively brilliant and shooting, leaving behind them a momentary luminous track of from 5 to 10 degrees in length, the advent of the larger ones being accompanied by a flash similar to that produced by the discharge of a distant gun.

All apparently came from near the zenith, the brightest entering the limit of vision at an altitude of about 60°, and, taking a direction towards that part of the horizon the observer was facing, disappeared at an altitude of about 35° or 40°; some of the officers that witnessed this appeared to think that the larger ones were lost near, or merged with, well-known stars of large magnitude, but this of course was purely imaginary.

The night was beautifully fine, atmosphere clear, and not a

Jan. 1873. Mr. Denning, On the Visibility of Jupiter.

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cloud visible the whole time, in fact, everything favourable for observing this wonderful phenomenon.

Barometer at 11 P.M. $\frac{29.88}{78.5}$; temp. of air, 76.2; wind, N.E.N. 1 to 2, and a light dew falling.

Bombay, December 3, 1372.

Note on the Visibility of Jupiter. By William F. Denning, Esq. (Communicated by the Secretaries.)

It is not generally understood that Jupiter is visible in sunshine to unassisted eyes of ordinary power, and I therefore communicate this note, bearing upon the subject, to the Society. I have made numerous naked-eye observations of this planet during the last two months, and find that he remains unmistakably visible until as nearly as possible thirty minutes after sunrise, when the limit of visibility is reached. I have seen Jupiter on several occasions when the Sun has been shining and quite free from cloud; but after the solar orb has attained an altitude of a few degrees the planet becomes imperceptible, being, in fact, entirely overpowered. I believe, however, that under favourable atmospheric conditions he is (when situated at a good elevation) within the range of acute vision at all times; unfortunately, though, our climate is unfavourable for such observations. I can very readily see Venus without instrumental aid at any period of the day when she is well placed for such a purpose.

Elements of the Minor Planet (118), Peitho. By Professor Oppolzer.

(Communicated in a letter from Dr. Luther to Mr. Hind.)

The orbit is founded upon observations on March 15, 26, and April 4. Dr. Luther's first position is—

March 15 14h 18m 59.6s 12h 7m 26.77 + 1c° 17' 25.4".

Epoch 1872, March 31.c, Berlin M.T.

Mean Anomaly 84 25 12.3

76 28 32.4 | Mean Equinox
88 47 14 25.5 | 1872.0.

i 7 50 11.3

\$\phi\$ 9 51 25.0

\$\mu\$ 928".402

\$\log \varpi\$ 0.388181

Sidereal Period 1396 days.